



Progression of Skills and Knowledge in Maths: Years 3 & 4



Topic	Year 3	Year 4
Place Value	<ul style="list-style-type: none"> • count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • recognise the place value of each digit in a 3- digit number (100s, 10s, 1s) • compare and order numbers up to 1,000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1,000 in numerals and in words • solve number problems and practical problems involving these ideas 	<ul style="list-style-type: none"> • count in multiples of 6, 7, 9, 25 and 1,000 • find 1,000 more or less than a given number • count backwards through 0 to include negative numbers • recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) • order and compare numbers beyond 1,000 • identify, represent and estimate numbers using different representations • round any number to the nearest 10, 100 or 1,000 • solve number and practical problems that involve all of the above and with increasingly large positive numbers • read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value
Addition and Subtraction	<ul style="list-style-type: none"> • add and subtract numbers mentally, including: <ul style="list-style-type: none"> • a three-digit number and 1s • a three-digit number and 10s • a three-digit number and 100s • add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction • estimate the answer to a calculation and use inverse operations to check answers • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction 	<ul style="list-style-type: none"> • add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • estimate and use inverse operations to check answers to a calculation • solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why
Multiplication and Division	<ul style="list-style-type: none"> • recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects 	<ul style="list-style-type: none"> • recall multiplication and division facts for multiplication tables up to 12×12 • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers • recognise and use factor pairs and commutativity in mental calculations • multiply two-digit and three-digit numbers by a one-digit number using formal written layout • solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects
Fractions	<ul style="list-style-type: none"> • count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 	<ul style="list-style-type: none"> • recognise and show, using diagrams, families of common equivalent fractions • count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10

	<ul style="list-style-type: none"> • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole [for example, $5/7 + 1/7 = 6/7$] • compare and order unit fractions, and fractions with the same denominators • solve problems that involve all of the above 	<ul style="list-style-type: none"> • solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number • add and subtract fractions with the same denominator • recognise and write decimal equivalents of any number of tenths or hundreds • recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ • find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths • round decimals with 1 decimal place to the nearest whole number • compare numbers with the same number of decimal places up to 2 decimal places • solve simple measure and money problems involving fractions and decimals to 2 decimal places
Measurement	<ul style="list-style-type: none"> • measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • measure the perimeter of simple 2-D shapes • add and subtract amounts of money to give change, using both £ and p in practical contexts • tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks • estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight • know the number of seconds in a minute and the number of days in each month, year and leap year • compare durations of events [for example, to calculate the time taken by particular events or tasks] 	<ul style="list-style-type: none"> • convert between different units of measure [for example, kilometre to metre; hour to minute] • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares • estimate, compare and calculate different measures, including money in pounds and pence • read, write and convert time between analogue and digital 12- and 24-hour clocks • solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days
Geometry- Properties of Shape	<ul style="list-style-type: none"> • draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them • recognise angles as a property of shape or a description of a turn • identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle 	<ul style="list-style-type: none"> • compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • identify acute and obtuse angles and compare and order angles up to 2 right angles by size • identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry

	<ul style="list-style-type: none"> • identify horizontal and vertical lines and pairs of perpendicular and parallel lines 	
Geometry- Position and Direction	<ul style="list-style-type: none"> • interpret and present data using bar charts, pictograms and tables • solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables 	<ul style="list-style-type: none"> • describe positions on a 2-D grid as coordinates in the first quadrant • describe movements between positions as translations of a given unit to the left/right and up/down • plot specified points and draw sides to complete a given polygon
Statistics		<ul style="list-style-type: none"> • interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs • solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs